MANAGING PUBLIC AND PRIVATE LAND THROUGH PARTIAL INTERESTS

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As property rights concerns grow along with budget pressures, government agencies charged with balancing resource policy objectives need to consider institutional alternatives to regulation and land purchase. This paper examines how public agencies participate in markets for partial interests in public and private land as a means of influencing resource use and conservation. The paper also reviews the application of real option theory to the valuation of conservation easements and considers potential extensions to other partial interests. (*JEL* Q24)

I. INTRODUCTION

Land ownership involves a bundle of rights including rights to graze livestock, grow crops, and build houses. This bundle may remain intact when an individual landowner holds all rights in a parcel of land (excluding eminent domain, police power, and other rights generally reserved by the government), or it may be allocated among multiple parties, both public and private.

Land use depends on how the bundle of rights is allocated among parties. Through legislation, regulation, and market participation, government agencies historically have influenced the allocation of these rights in order to accomplish public objectives. For example, the government used federal land grants to states, railroad companies, and individual homesteaders to encourage westward expansion in the 19th century. People generally received these grants on the condition that they cleared, drained, plowed, or otherwise made the land suitable for productive use. In the 20th century, land use intensification and increasing environmental awareness have led to a gradual policy shift—first from disposition to retention of the remaining public lands and then toward strategies for balancing resource use and conservation on both public and private lands. These strategies have included both regulatory means (such as wetland regulations) and voluntary mechanisms (such as land purchases, commodity and conservation programs, and tax incentives).

In recent years anti-regulatory sentiment has increased even while budget constraints have reduced the scope of voluntary land acquisition programs. At the same time, one can expect federal leverage to encourage conservation of farmland to diminish as payments to farmers decline over the next several years under the terms of the 1996 farm bill. Simplification of the tax code remains a popular refrain. These constraints suggest that the acquisition and conveyance of partial interests in land may serve as alternative strategies to influence the use and conservation of public and private land.

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ABBREVIATIONS

AUM: Animal Unit Month
BLM: Bureau of Land Management
CRP: Conservation Reserve Program
GAO: General Accounting Office
LCAPB: Lancaster County Agricultural Preserve Board
PDR: Purchase of Development Rights
USDA: U.S. Department of Agriculture
WRP: Wetlands Reserve Program

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II. PARTIAL INTERESTS IN LAND

Partial interests are the sticks in the bundle of rights that constitute land ownership. Because partial interests in a particular tract of land may be traded separately, public agencies have opportunities to influence resource use without incurring the political costs of regulation or the full financial costs of outright land acquisition. Four types of partial interests are as follows:

A. *Conservation Easements*

For centuries property owners have used easements to allow others to use their land for specified purposes. Conservation easements are a more recent phenomenon. While a conventional easement involves the conveyance of certain affirmative rights to the easement holder, "an easement for conservation or preservation purposes involves the relinquishment of some of these rights... and the power in the new holder of the rights to enforce the restrictions on the use of the property" (Small, 1990). Conservation easements can formally establish public interests in resources and allow the public to acquire these interests on a voluntary basis to ensure desired resource protection.

Government agencies and nonprofit organizations have used conservation easements to protect a variety of land resources including farmland and other open space, wildlife habitat, erodible soil, and wetlands. Generally, the full value to society of such resources may not be reflected in the stream of returns that private landowners consider when choosing among alternative land uses. Wetlands, for example, provide benefits in terms of groundwater quality and recharge, floodwater retention, fish and wildlife habitat, and recreation. However, only habitat and recreation may afford income-generating opportunities to private landowners, and returns to these activities are likely to be small in comparison with alternatives like agricultural production or urban development.

B. *Management Agreements and Maintenance Agreements*

Less formal than conservation easements but similar in practice are the management agreements and maintenance agreements used to preserve natural and agricultural landscapes in some European countries (see Slangen, 1992, on the Netherlands; Leonard, 1982, on the United Kingdom). These contractual agreements between individual farmland owners and government agencies require farmland owners to agree to use their lands in ways that do not adversely affect natural features and rural landscapes. As with easements, landowners receive compensation for the use restrictions they accept on their lands.

C. *Options*

People commonly think of options as a means of buying or selling other assets, but options also are assets themselves. In a standard call option, an agent pays a premium for the option to buy an underlying asset within a specified period of time at an agreed price (the exercise price). The premium depends on the value of the underlying asset, the exercise price, the maturity of the option, the volatility of the value of underlying asset, and the risk-free interest rate (Sick, 1989).

If the underlying asset is land, an option in effect is a partial interest in land. Real estate options can serve both as a means of acquiring the rights necessary to permit development and as a means of acquiring the rights necessary to prevent development. For example, in order to prevent development a land trust might acquire a conservation easement on an undeveloped property. Holding an easement would be sufficient to prevent development of the land for the duration of the easement. Alternatively, the land trust also could prevent development by acquiring an option to buy a conservation easement. Although such an option would not convey the underlying land itself (unless or until the option is exercised), it would be sufficient to prevent development for the duration of the option. In practice, options are used primarily as short-term bridges to acquisition of longer-term interests in land.

D. *Taxation*

The power of taxation is one final example of a partial interest in land that deserves mention. Through taxation the government exercises its right to receive a share of the returns to land use. Local governments may tax land directly, but state governments and the federal government also tax income derived from land use as well as the value of land when it is part of an inherited estate. Each of these taxes plays

a role in determining the after-tax value of alternative acquisition and conveyance strategies to particular landowners. Thus, they also influence landowners' decisions regarding the use and disposition of their land.

III. PARTIAL INTERESTS AS POLICY TOOLS

Partial interests have long been used informally in a variety of agricultural policy contexts. Until the 1996 farm bill, for example, acreage reduction programs required landowners to idle a portion of base acreage in order to participate in federal commodity programs, while paid land diversion programs offered program participants payments for additional idled acres. The "sodbuster," "swampbuster," and conservation compliance provisions of other recent farm bills likewise deny federal program benefits to producers who fail to comply with various conservation requirements. All offer some form of federal benefits in exchange for voluntary acceptance of restrictions on the use of private land.

Partial interests also are used as agricultural policy tools in a number of more formal ways. Currently, public agencies acquire conservation easements or easement-like interests from private landowners on a voluntary basis to protect lands with a variety of environmental characteristics. Additionally, public agencies also convey partial interests or privileges in public lands to private individuals through permits such as those to graze livestock, harvest timber, or extract minerals. While the two cases mirror one another, both represent an effort to balance public and private objectives in resource use and conservation.

A. *Farmland Protection*

Conservation easements commonly are used in farmland protection or purchase-of-development-rights (PDR) programs operated by government agencies and private land trusts. In 1974, Suffolk County (on Long Island), New York established the nation's first PDR program. The first statewide program was established in Maryland in 1977 (*Farmland Preservation Report*, 1994). The nonprofit American Farmland Trust began acquiring farmland protection easements in 1983. The federal government has played a minor role in farmland protection in the past, but the 1996 farm bill authorizes it to acquire easements and other interests in land for farmland protection purposes.

Under these programs, farmland owners voluntarily convey the development rights in their land to government agencies or land trusts. They receive compensation in the form of direct payments and/or income and estate tax benefits. Landowners retain title to their land and can sell or pass it on to others, although the use of the land is limited primarily to farming and open space. The easement runs with the land (i.e., it is binding on subsequent owners) either in perpetuity or for a period of time specified in the easement document.

Acquiring conservation easements in order to protect farmland and open space has enjoyed increasing popularity over the past two decades—particularly in the Northeast, where urban pressure is high (table 1). State and local programs represent about half of farmland acreage that is protected by conservation easements nationwide. Private land trusts represent a similar amount, reaching a state-county-private total of about 730,000 acres nationwide (*Farmland Preservation Report*, 1994).

Farmland protection easements avoid some of the costs of land acquisition and regulation by tailoring their provisions to meet specific program and landowner goals on specific parcels of land. As a result, however, conservation easements can still involve substantial costs in negotiation, settlement, monitoring, and enforcement. Data from the Lancaster County Agricultural Preserve Board (LCAPB) indicate that costs associated with survey, appraisal, and related activities necessary to record an easement averaged about $83 per acre preserved in 1993, whereas the easements themselves cost an average of $2,180 per acre (LCAPB, 1994). Data on monitoring and enforcement costs, which are potentially much higher in the long run, will become available only as easement programs mature.

B. *The Wetlands Reserve Program (WRP)*

Conservation easements also appear in other resource policy contexts, including the WRP. The 1990 farm bill authorized the WRP as a voluntary federal program in which the federal government acquires conservation easements from private landowners in order to restore and permanently protect wetlands that previously were converted for agricultural pro-

TABLE 1
Participation in Easement and Easement-like Programs

Region[a]	State & Local Farmland Protection Programs		Conservation Reserve Program		Wetlands Reserve Program (inc. Emergency Signups)	
	Acres	$/acre	Acres	$/acre/year	Acres	$/acre
Appalachia	1,255	1,422	1,158,124	54	18,514	n.a.[b]
Corn Belt	0	—	5,603,333	74	115,621	n.a.
Delta States	0	—	1,248,403	44	148,667	n.a.
Lake States	0	—	3,008,337	59	18,664	n.a.
Mountain	1,904	1,709	6,687,264	40	3,410	n.a.
Northeast	337,092	1,666	226,411	59	6,383	n.a.
Northern Plains	0	—	9,664,110	46	25,254	n.a.
Pacific	56,435	1,725	1,791,182	50	27,910	n.a.
Southeast	0	—	1,692,580	43	5,257	n.a.
Southern Plains	0	—	5,342,989	40	21,798	n.a.
Total[c]	396,686	1,674	36,422,733	50	391,478	600

[a]Appalachia = KT, NC, TN, VA, WV; Corn Belt = IL, IN, IA, MO, OH; Delta States = AR, LA, MS; Lake States = MI, MN, WI; Mountain = AZ, CO, ID, MT, NV, NM, UT, WY; Northeast = CT, DE, ME, MD, MA, NH, NJ, NY, PA, RI, VT; Northern Plains = KS, NE, ND, SD; Pacific = CA, OR, WA; Southeast = AL, FL, GA, SC; Southern Plains = OK, TX.

[b]Not available.

[c]Excludes Alaska and Hawaii.

Source: Wiebe et al. (1996).

duction. To date, the WRP has protected about 390,000 acres under permanent easements (table 1). The 1996 farm bill divides new enrollments equally among permanent easements, 30-year easements, and restoration cost-share agreements. An Emergency WRP targeted wetlands in floodplains following the Midwestern floods of 1993.

Farmland protection easements represent the conveyance of development rights from landowners to government agencies and land trusts. WRP easements represent the conveyance of cultivation and development rights from landowners to USDA. This does not mean that USDA gains the right to cultivate or develop the land under easement, but that USDA gains the right and the obligation to enforce the use restrictions imposed on the land. Under the terms of WRP easements, landowners may retain the right to hunt and fish, harvest timber and hay, graze livestock, and sell mineral rights, provided the objectives of the easement continue to be fulfilled.

C. *The Conservation Reserve Program (CRP)*

Other examples of easement-like interests that the federal government uses include the leasehold interests acquired by USDA under the CRP. Established in the 1985 farm bill, the CRP is a voluntary federal program in which the federal government acquires partial interests in private lands in order to reduce soil erosion on highly erodible cropland. Participants receive annual rental payments from USDA in return for diverting highly erodible cropland from crop production, haying, and grazing (except in emergencies) and for establishing and maintaining instead a protective cover of grass, trees, or other approved conservation practices. It is the largest long-term cropland retirement program in U.S. history, with a peak enrollment of about 36 million acres in 1992–1995 (table 1). Contracts typically are for 10 years.

While the agreement reached legally is defined as a contract, it has the economic effect of a temporary conservation easement. The government holds temporary cultivation, grazing, and development rights much like a public agency or land trust holds the development rights on a parcel of farmland under easement. In each case, the easement-holding party has the right to prevent more intensive use of the land (but not the right to use the land more intensively themselves). CRP differs from the

TABLE 2
Livestock Grazing on Federal Land

	Forest Service	Bureau of Land Management	Total
permittees	9,100	17,800	23,600[a]
Animal Unit Months (AUMs) (millions)	6.5[b]	10.8	17.4
allotments	9,000	22,000	31,000
acres (millions)	105	165	270
cattle (millions/yr)	1.4	2.2	3.6
sheep (millions/yr)	1.2	2.1	3.3
fees ($ millions/yr)	7.3	14.6	21.9

[a]About 3300 producers have both Forest Service and BLM permits.

[b]FS AUMs have been converted to BLM-equivalent AUMs by dividing by 1.2.

Sources: GAO (1988), Forest Service and BLM (1992).

farmland protection and WRP cases in that CRP contracts represent shorter-term restrictions on land use. This is a difference in degree rather than kind, however. The end result is that in cases such as the CRP, a public agency is *renting* partial interests in land, whereas in farmland protection or the WRP, the agency is concerned with *buying* partial interests in land.

A recent GAO report about the future of CRP as current contracts expire over the next several years considered acquisition of permanent easements among the options (GAO, 1994). In fact, some observers argue that more land could have been protected permanently if the 10 years worth of rental payments on existing contracts had been applied initially to permanent easements instead (Daniels, 1988).

D. *Federal Grazing Permits*

In contrast to the preceding examples of publicly held interests in private land, grazing privileges are legal instruments that permit private use of public lands. Federal support for westward expansion and settlement in the 19th century included easy terms for transfer of public lands to private ownership. Farmers and ranchers and their livestock enjoyed virtually unrestricted access to lands that remained in public ownership. The cumulative effects of drought and overgrazing raised concerns about the condition of federal rangeland and eventually led to establishing a grazing permit and fee system on Forest Service lands in 1906 and on Bureau of Land Management (BLM) lands in 1934 (GAO, 1988). Laws passed in 1960 and in 1976 established that remaining public lands would be retained in federal ownership and managed for sustained yields under multiple uses, including timber, minerals, energy, grazing, water, recreation, and wildlife. Today the Forest Service and BLM manage more than 250 million acres of federal rangeland, most of it in 16 western states (table 2).

In legal terms, grazing permits are revocable licenses and "convey no right, title, or interest held by the United States in any lands or resources" (Forest Service, 1991). In economic terms, however, they share characteristics of other partial interests defining the distribution of returns to various permitted uses among multiple parties. Permittees pay annual grazing fees, currently set by a formula established in 1978 and based on an index of rental charges for private rangeland and an index of livestock industry profitability (GAO, 1991). Federal fees are uniform across states, although private fees vary significantly by location (LaFrance and Watts, 1995). The permits themselves are free (at least when initially acquired from the government) and generally change hands along with the base property to which they are attached. Nevertheless, the difference between the grazing fees paid by federal permittees and the market value of the forage acquired gives permits a positive value, which is capitalized into the value of base properties that have federal grazing permits attached.

IV. VALUATION OF PARTIAL INTERESTS

Partial interest acquisition compensates a landowner for following certain land-use restrictions. In the absence of active markets for partial interests, one must determine the value of partial interests by analyzing markets for underlying properties while recognizing the complications introduced by uncertainty. One must estimate the value of a particular interest indirectly as the difference between the respective fair market values of the land in its highest and best uses with and without the interest in question.

For a given parcel of land, the highest and best use may be a high-intensity use (such as urban development) that generates net returns R_u in each period. Suppose this land is restricted in perpetuity to a medium-intensity use (such as agriculture) that generates net returns R_a in each period. The value of the easement would be the difference between the discounted present values of R_u and R_a. Similarly, if agriculture is the highest and best use of a parcel that is restricted to a low-intensity use (such as recreation) that generates net returns R_r in each period, the value of the easement would be the difference between the discounted present values of R_a and R_r.

Appraisers typically assess unrestricted-use values by using comparable sales information. Estimating restricted-use values generally involves discounting expected income flows, although sales of parcels with comparable use restrictions may become increasingly useful to the extent that they become more numerous over time. Observers generally consider the comparable sales approach as the most accurate for uniform commodities traded in active markets—features that do not typically characterize interests in land. First, interests in land are not homogeneous commodities. Second, only 3%–4% of farmland changes hands each year, so finding sales that are truly comparable may be difficult. Third, prices of parcels that already have been converted to urban use may overstate the value of remaining undeveloped land (Buist et al., 1995). Finally, as Buist et al. (1995) demonstrate, the value of an easement estimated by the comparable sales method may differ from the true value of the easement if farmland owners fully consider the option value of waiting before deciding whether to preserve, sell, or develop their land. Recent contributions to the financial literature on options offer further insights into the valuation of farmland protection easements.

A. *The Farmland Conversion Decision as a Financial Option*

At any given time, farmland owners have two basic investment alternatives: they can farm the land (or rent it to someone who will) and earn returns from farming, or they can give up the agricultural value of their land and realize its urban value by selling and/or converting it to urban use. Uncertainty about future returns complicates the decision. Owners can delay the decision but usually cannot reverse it since urban land rarely reverts to farmland.

The decision to convey development rights is irreversible in two senses. First, land development typically involves considerable investment in infrastructure, and restoration of farmland would require additional expenditure to clear away such infrastructure. Expected benefits from farmland restoration rarely justify such expenditure. Second, existing farmland protection programs generally convey development rights in perpetuity. The decision to surrender development rights involves uncertainty because the economic and environmental conditions underlying future agricultural and urban returns are unknown today. Information about these conditions becomes available only over time. Finally, the owner can delay the decision to convey development rights in order to take advantage of new information about changing economic and environmental conditions. The landowner may decide to sell development rights at any time (although demand, and thus prices, may vary).

When land conversion is irreversible, when landowners make decisions under uncertainty, and when they can delay decisions in order to take advantage of new information, one can model the decision to convert as an irreversible investment under uncertainty (Pindyck, 1991). The decision to convey development rights then entails an implicit option for the value of waiting, and delaying the decision may be to the landowner's advantage. Dixit and Pindyck (1994) and others develop this approach in the economics literature as Sick (1989) does in the financial literature. Capozza and Sick (1994) apply the approach to farmland conversion decisions. Sick (1989) and Capozza and Sick

(1994) show that agricultural land is a real asset with an attached perpetual American option to convert to urban use and that option valuation methods can be applied to such land.

Pindyck (1991) and Dixit and Pindyck (1994) point out that these types of irreversible investment opportunities resemble financial call options. A call option endows its holder with the right to buy an asset for an exercise price at any time before a specified expiration date. The farmland owner similarly can convert farmland into urban land (buy an asset) for an exercise price (the agricultural value plus the conversion costs) at an optimal date. The option is said to be "in the money" (meaning that its holder will earn positive profits) when the urban value of land exceeds its agricultural value plus conversion costs.

The value of this option depends on future urban and agricultural rents that are uncertain today. Irreversibility means that converting today entails not only permanently forfeiting the agricultural use of the farm but also forgoing possible new information—such as changes in government policies or food or housing prices—that might influence the timing and profitability of conversion. Hence, an additional opportunity cost of converting today instead of keeping the conversion option alive for the future accompanies the loss of agricultural value. In this case, the true value of the option to convert is the agricultural value of the land plus the true value of the development rights (which includes the value of waiting for more information before deciding whether or not to develop the land).

The comparable sales approach to valuation of a conservation easements does not explicitly recognize the opportunity cost of not waiting to convert and thus may misprice the easement. Setting easement prices equal to today's urban value minus today's agricultural value by using comparable sales estimates can fail to properly value the conversion option. A simple two-period example, adapted to the current situation from Pindyck (1994), illustrates this point.

Say a farm's agricultural value is the same in both periods and equals \$300 per acre. Today's urban value of the farm is \$500 per acre. The urban value in the next period, however, is uncertain (depending, for example, on approval of plans to develop an adjacent property), and can take the values \$950 and \$250 per acre with equal probability. Based on today's values (the comparable sales approach), the price of an easement would be \$500 − \$300 = \$200 per acre. This measure of value overlooks the owner's opportunity to farm in the first period and to decide in the second period whether to convert, depending on whether urban values have gone up or down. If the second-period urban value turns out to be \$950, the easement would then be worth \$650 (urban value minus agricultural value); if the second-period urban value turns out to be \$250, the easement would be worthless, since the farm is more valuable remaining in agricultural use. Today, since conversion will take place only if urban value rises to \$950, the value of the option of waiting (ignoring discounting) is the probability-weighted average of \$950 and \$300; that is, 0.5(\$950) + 0.5(\$300) = \$625 per acre. Hence, the true value of the conversion option equals max(\$500, \$625) = \$625 per acre, and the true price of the easement, recognizing the value of waiting, is \$625 − \$300 = \$325 per acre. Pricing the easement at \$200 (instead of \$325) ignores the possibility of waiting for more information before deciding whether or not to develop the land. The value of waiting thus is \$325 − \$200 = \$125 per acre. In general, this result implies that the landowner may convert farmland for development too soon if he or she does not recognize this option value.

Sick (1989) and Capozza and Sick (1994) provide formulas to compute option values as a function of the current value of (or returns to) developed land, the expected growth rate and variability of urban rent, the discount rate, and the cost of conversion. Applying this method requires making distributional assumptions on the returns from urban use. This approach is useful in theoretical analyses, but data constraints limit its value in practice. As more data become available, testing the model empirically will become possible.

B. *Valuing Other Partial Interests*

The option valuation method that Sick (1989) and Capozza and Sick (1994) suggest for farmland conversion is equally applicable for the WRP. Here the more intensive (unrestricted) use is agriculture, and the less intensive (restricted) uses allowed under WRP easements include haying, grazing, timber harvest,

TABLE 3
Relative Costs of Alternative Land Policy Strategies[a]

Cost Item	Regulation	Partial interest acquisition	Land acquisition
Negotiation	low	high	medium
Acquisition	low	medium	high
Monitoring	medium – high	medium – high	low
Enforcement	medium – high	medium – high	low
Political	high	low	low

[a]Relative magnitudes are intended to be comparable across columns, but not across rows.

hunting, and fishing. The three conditions necessary to apply the option valuation method are met. First, because of the perpetual nature of WRP easements (at least until the 1996 farm bill), the decision essentially is irreversible. Second, future agricultural returns and returns from permitted uses are uncertain. Third, landowners can postpone the decision to participate in the WRP (although future program funding is not assured).

By contrast, since CRP in its current form involves finite-term contracts, participation is neither an irreversible investment decision nor analogous to a perpetual American option. As such, the Sick and Capozza-Sick real option valuation method is not directly applicable.

In cases where private individuals or companies acquire partial interests in public lands, the irreversible-investment-under-uncertainty methods in Dixit and Pindyck (1994) can adequately estimate the value of some such interests (e.g., mineral or oil leases). Since grazing permits are not irreversible, however, the Capozza-Sick option valuation method is not applicable. Nevertheless, if markets were to develop for the permits themselves, option valuation methods would provide insights to the valuation of these permits.

V. POLICY IMPLICATIONS

This review of partial interests in land provides several lessons for resource use and conservation policy. First, the federal government has long played a dual role in shaping property rights to influence land use in ways that accomplish public objectives. Through legislation, regulation, and court decisions, public agencies help establish and define the distribution of property rights within which markets function. These agencies also participate in the resulting markets—for example, by buying and selling land and interests in land. Public agencies have acquired and conveyed partial interests in land using a variety of ways to accomplish a variety of resource use and conservation goals.

Second, tailoring partial interests on a case-by-case basis is necessary to meet specific program and landowner goals on specific parcels of land. Thus, the process can involve substantial negotiation, acquisition, monitoring, and enforcement costs. In some cases, these costs may even exceed the costs of regulation or outright land acquisition (table 3). These costs in part explain why markets for partial interests in land have remained inactive. The relative merits and disadvantages of alternative policy strategies will vary from one situation to the next and are likely to remain the subject of ongoing discussion (see, for example, Lafountain, 1996).

Third, to reduce the costs of using partial interests as resource policy tools, federal, state, and local government agencies may find working in partnership with nonprofit organizations beneficial in some cases. Such organizations have the ability to act quickly, take advantage of tax incentives, and mobilize local knowledge and support and thus can help public agencies acquire and convey partial interests more efficiently. Potential private partners must be well aware of federal standards governing appraisal and acquisition of interests in land and must work closely with federal agencies from the beginning of any acquisition process.

Fourth, given thin markets for partial interests themselves, determining the value of partial interests requires analyzing markets for underlying properties while recognizing the com-

plications that accompany uncertainty about future returns from alternative land uses. One must estimate the value of a particular interest indirectly as the difference between the value of the land with and without the interest in question. If land conversion is irreversible, and if owners make conversion decisions under uncertainty and can delay decisions in order to take advantage of new information, the decision will be analogous to an irreversible investment decision under uncertainty. Recent developments in the area of option valuation therefore can be useful in valuing partial interests.

Valuation of partial interests sheds light on recent legislative proposals regarding property rights. These proposals would require compensation whenever federal agency actions diminish the value of a portion of a property more than a certain threshold percentage, regardless of other economic and legal criteria. Experience with partial interests suggests that determining compensation levels would require careful (and potentially costly) case-by-case analysis. (Ironically, this is one of the criticisms leveled against the current system.)

Finally, in addition to considering fair market value, one must consider the role of income, estate, and property taxes in determining the after-tax value of alternative acquisition and conveyance strategies to particular landowners. In determining whether or not to acquire an easement, public or private agencies also must compare the easement's market value with the nonmarket or social value of holding the easement, based on the stream of nonmarket or social benefits that the land generates in its easement-encumbered condition. Ranking multiple easement-acquisition opportunities and weighing easement acquisition in particular or environmental protection in general against other public policy objectives require additional consideration. Questions of how much public money to spend on conservation easements and of how to distribute the determined amount according to geographic, environmental, and other criteria, will continue to be decided in the political arena.

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